



## Just Another QSO

Frank Skinner KA4JQZ

It was July 1st 1979 and I had been a ham a little less than 1 month. Ham radio and the thrill of talking using CW to distant locations was still new to me. I just got my 40 meter dipole, made out of galvanized steel wire, to load up to my Heathkit HW-16. Tuning around the band I noticed no activity on 40 meters, wait, my home-made dummy load was still hooked up. I disconnected the dummy load and connected the antenna, inserted a crystal for 7.125 Mhz and there was KA4GYV calling CQ, loud and steady. His speed is a little fast for me but I needed to get my code speed up to 13 WPM to pass my general exam so I answer his CQ. KA4GYV KA4GYV DE KA4JQZ KA4JQZ KN. To my surprise he answers me, I am nervous. And the QSO begins like any other QSO in the novice band on 40 meters in the middle of the day. We exchange names, location, equipment and ages (we are about the same age). The QSO is finished I say 73 and log the contact, number 44 and a few days later a card comes in the mail and Virginia is taken care of for Worked All States. I am well on my way. My thoughts during those days at the ripe old age of 17 were how I could complete W.A.S., work DX and make a better antenna that my Dad would let me put up in his yard.

It is now 2004, twenty four years later; I retired from the military and have started a new career in Colorado. I have a modest station to include a ground mounted trap vertical and a TS-830S that was my first "real" rig that I bought new in 1983. I have been out of the game for 9 years, but upgraded to extra in 1987 and kept my license current during my time off-the-air. I decided it is time to complete Worked All States as I never completed it from North Carolina. Off I go, working everyone I could, I was eluded by Rhode Island for several months and was searching for that last state.

One winter night I heard a loud station on 40 meters calling CQ. CQ CQ CQ DE N4EKV, his code was great and it would be great practice if I ever want to get my speed backup to 30 wpm. I answered his CQ and my code is so bad that it was a short QSO. Name, QTH, equipment and in 12 minutes it is over. I still log every contact and I checked qrz.com to mail a card, as I do for most QSOs. While checking qrz.com I notice a link to Adam's web site. Checking further I notice that Adam use to be KA4GYV in Virginia about the same time I was in North Carolina, well I checked my log book from 1979 and sure enough, he was contact number

(Continued on page 11)

Issue 54  
Volume 4  
April 2004

Club Information	2
Club and Local News	3
Crossword Puzzler	4
Satellite Operations	7
Roster	8
Public Service	10
Calendar	12
The Back Page	12

## Please Note:

Please have all content for the May issue submitted by April 24.

Articles are needed to keep 0-Beat interesting so submit yours now.

**Meetings** Our monthly meetings are held on the 2nd Wednesday of each month at 7 pm, temporarily at the El Paso County Office of Emergency Management, 305 S Union Blvd. Our Annual meeting is in October. Check the web site for any changes.

### Regular License Exam Sessions

Our ARRL VE test sessions are on the 2nd Saturday of even numbered month. Our ARRL VE test sessions are on the 2nd Saturday of even numbered months at 9:00 AM. Contact Erik KGØXE for details.

Examinees need to bring (1) \$12, preferably a check or money order payable to ARRL/VEC; (2) picture ID; (3) the signed original and a copy of your current amateur radio license and CSEs you have (we keep the copies); and (4) a pen, pencil, and calculator if needed. Memory calculators will be checked.

Location:

Colorado Springs Police Department  
Falcon Division Community Room  
7850 Goddard Street  
Colorado Springs, CO 80920

Located behind the shopping center across Academy Boulevard from Chapel Hills Mall. Turn onto Kelly Johnson Blvd from Academy (either intersection), then turn onto Goddard Street (left behind Wendy's or right behind the Burger King and shopping center). Please confine parking to the street, as the parking lot is mostly limited to official police business.

**PPRAA Web Page** See it at <http://www.qsl.net/ppraa/>. Thanks to Lee Inman KØQED for maintaining these pages.

**Get on the PPRAA E-mail Reflector** Stay on top of new or short-fused developments. Subscribe at <http://mailman.qth.net/mailman/listinfo/ppraa.net>. Thanks to John Wishart KCØJFH for maintaining this list.

**PPRAA Simplex Net** New time and day to be announced soon.

**Nonprofit Organization** The PPRAA is a federal 501(c)(3) nonprofit organization and welcomes all contributions. Your contributions/ donations may be tax-deductible.

## Officers and Directors

President	Al Penney	VO1NO	alpenney@codenet.net
Vice President	Dennis Major	NØABC	n0abc@qsl.net
*Secretary	Joanie VerDuft	KCØGMI	verduftj@earthlink.net
Treasurer	John Hasling	KØAAI	k0aai@adelphia.net
*Board Member	Tom McDaniel	NØNTX	n0ntx@amsat.org
Board Member	Kate Muniz	WB9BAH	wb9bah@aol.com
*Board Member	Ben Cruise	NØLNW	n0lnw@arrl.net
*Board Member	Jerry VerDuft	ADØA	verduftj@earthlink.net
Ø-Beat Editor	Tom Dawson	KCØNRZ	kc0nrz@arrl.net

\* Indicates this Director is in the 2nd year of a two-year term

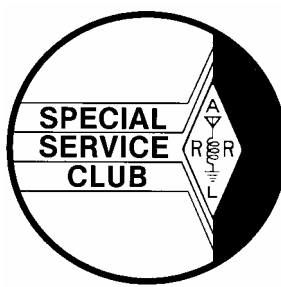
## Committee Chairs & Other Contacts

Activity	VACANT		
Auditing	Kate Muniz	WB9BAH	wb9bah@aol.com
Asset	Mike Stansberry	KØTER	k0ter@arrl.net
E-Mail Reflector	John Wishart	KCØJFH	john.wishart@hp.com
Historian	Ron Deutsch	NKØP	nk0p@arrl.net
Interference	Bill Petty	NØNJX	william.petty@lsil.com
Membership	Les Borst	KCØNC	kc0nc@falconbroadband.net
Programs	Dennis Major	NØABC	n0abc@qsl.net
Publicity	Rob Roller	N7LV	n7lv@amsat.org
Public Service	Mike Stansberry	KØTER	k0ter@arrl.net
Hamfest	Kate Muniz	WB9BAH	wb9bah@aol.com
Technical Education	Linda Hedges	KBØRKW	kb0rkw@juno.com
VE Testing	Erik Mugele	KGØXE	ve@teuton.org
Video Librarian	Dennis Major	NØABC	n0abc@qsl.net
Webmaster	Lee Inman	KØQED	k0qed@arrl.net
AMSAT Coordinator	Tom McDaniel	NØNTX	n0ntx@amsat.org
ARRL Awards Mgr	Rick Brown	KØSU	k0su@arrl.net
ARES EC	Sid White	K4ARM	k4arm@arrl.net
ARES Liaison	Mike Stansberry	KØTER	k0ter@arrl.net
ARRL Section Mgr	Jeff Ryan	KØRM	k0rm@arrl.net
CCARC Liaison	Moe Pierce	WBØRTF	wb0rtf@amsat.org
HamCon Chairman	Jerry VerDuft	ADØA	verduftj@earthlink.net
RACES Officer	Les Borst	KCØNC	kc0nc@falconbroadband.net

## Upcoming Club Programs

April Program: To be announced.

The Ø-Beat is published monthly in the interest of the members of the Pikes Peak Radio Amateur Association, Inc, P.O. Box 16521, Colorado Springs, CO 80935-6521. Permission is granted to reprint articles provided credit is given to both the author and the Ø-Beat. For membership and subscriptions see the back inside cover of this publication. Monthly advertising rates: Full page \$48; Half page \$24; Quarter page \$12; Business card \$6. Rates are billed quarterly. Send advertisements and payments to Pikes Peak Radio Amateur Association, Inc, P.O. Box 16521, Colorado Springs, CO 80935-6521.



**Articles for the Ø-Beat** Deadline for articles or ads is the 26th of the month. Submit articles by e-mail, US Mail, telephone or in person to the editor. Editor reserves right to edit for readability, grammar, spelling, punctuation and length.

**Ø-Beat Available Electronically** in PDF form via e-mail and on the web at <http://www.qsl.net/ppraa/zerobeat.htm>. Contact the editor for details.

## Club and Local News

### PPRAA Club Meeting Minutes 3/10/2004

The March meeting was called to order by VP Dennis Major NØABC at 7:05 pm followed by introductions around the room. Jake NØCYR reported that Harley Hanson was now a silent key. The February meeting minutes were approved. John KØAAI gave the Treasurer's report: Inflows of \$299.92, Outflows of \$151.00, overall total income \$148.92 for the period 2/10/04 – 3/10/04. Les KCØNC announced RACES training in preparation of the upcoming exercise. Les also reported that membership renewals are down and if you know any that have not renewed their PPRAA membership, please urge them to do so. Kate WB9BAH noted that the PPRAA Swap Fest is slated for June 12<sup>th</sup> and Bill KDØJU needs help in soliciting prize donors. If you can help with this please contact kd0ju@amsat.org. The PPRAA Swap Fest registration flyer is available on the club website. Contact Kate directly if you want to rent a Swap Fest table. Rob N7LV is selling Swap Fest raffle tickets. Tom NØNTX reported that the AO-40 satellite transmitter is responding so there is hope in getting it back up. The recent T-hunt at Palmer Park was minimally attended but went well. Mike KØTER noted that he has provided the Board of Directors with a complete list of club assets. Mike also advised that his experience with Colorado Springs utilities responding to and locating sources of noise has been positive. Rob N7LV announced the annual meeting of the PPFMA (the owners of the .970 repeater) on Sunday, March 14<sup>th</sup> at Webster University. John KCØJFH has a list of equipment from a ham he knows who wants to sale some gear; contact John directly. Moe WBØRTF noted that the Colorado YLs are meeting at the Country Buffet in Englewood on March 13<sup>th</sup>. Dennis NØABC advised that the giveaway table will be at the bottom of the stairs at each meeting. The Hammy Award was passed to Rob Roller N7LV for his continued dedication to emergency services communications. Congratulations Rob!! After a 15 minute break and prize drawings, the program was presented by Pete McCollum NØTDM on CIA Communications and Equipment. Meeting adjourned at 9 pm. Submitted by Jerry ADØA in the absence of the Secretary.

### Board Meeting Minutes

3/15/04

The PPRAA Board of Directors met at KØAAI's QTH on 3/15/04. Those present were VP - Dennis Major NØABC, Secy - Joanie VerDuft KCØGMI, Treas - John Hasling, KØAAI, Jerry VerDuft ADØA, Tom Mc Daniel NØNTX, and Kate Muniz WB9BAH. Absent were Al Penney VOINO, Ben Cruise NØLNW and Tom Dawson KCØNRZ. VP NØABC called the meeting to order at 7 pm. Previous Board meeting minutes were reviewed and approved. The Treasurer's report was reviewed noting a higher expense for Ø-Beat in January and March due to the increased number of pages. ADØA reported on the prospects for club badges from Plaque World, the same place we have purchased club badges in the past. Color options were reviewed and the Board agreed to have club badges in royal blue as many members have expressed their dislike for the brown color used in the past. Badges will be available for ordering by the membership at a cost of \$10 each. Future programs was discussed: Dennis is still looking for a speaker for April; ADØA will present a program on Amateur Radio Frequency Propagation in May; Field Day discussion for June. Field Day food was discussed by KCØGMI. NØABC noted that he had visited the UCCS Amateur Radio Club and assured them of our support, as they are quite small at this point. The Board discussed the potential of a PPRAA student membership of \$5/year. The PPRAA By-Laws will be reviewed to determine proper action for such a student membership. NØABC advised that KØSU would be starting his General Class exam classes on April 6<sup>th</sup>, Tuesday nights for 6 weeks at the Office of Emergency Management training room. KØTER's inventory of club assets was reviewed and the Board approved removal of inventory item #0010 coffee maker, #0032 100 ft RG-8 coax, #0047 70 ft RG-8 coax, and #0051 generator which are missing, stolen or otherwise disposed of. The Board further requested KØTER to advise as to which of the remaining items are functional versus non-functional as the non-functional items can be brought to the June swap fest for potential sale. KØAAI advised that he was in the process of updating the club signature cards at Ent Federal Credit Union. Meeting adjourned at 8:15 pm. Respectfully submitted by Joanie KCØGMI, Secretary.

# The Amateur Radio Crossword Puzzle— QRO: Under the Hood

By H. Ward Silver, N0AX

At night, its glowing filaments light (and heat) the whole shack. In a pinch, an amplifier can make the difference between getting through and closing the log empty, whether it's in a DX pileup or in an emergency. This installment of the Crossword Puzzle celebrates the ham's equivalent of the V-8 engine and wide tires--the linear amplifier and its reliable workhorses, vacuum tubes.

## Across

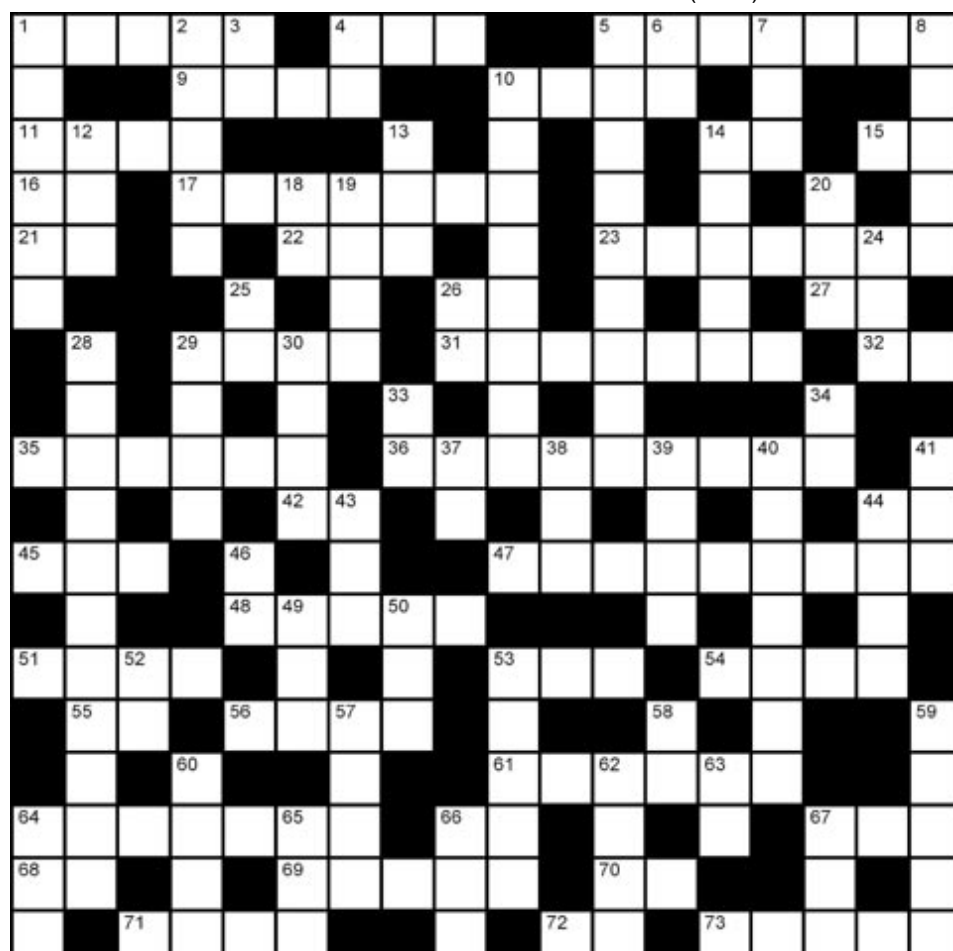
1. Not tight
4. Current across a gap
5. Removing heat
9. Thermal energy
10. Low gain
11. One-billionth
14. Thousand kilowatts
15. Power Amp (abbr.)
16. Az\_ \_ \_
17. The means of adjusting
21. Varying voltage
22. A pair
23. Electron source
26. Wattmeter (abbr.)
27. Titanium (symbol)
29. Contains a vacuum
31. These raise the temperature
32. Output network

35. Legal maximum is a full ...
36. Safety mechanism
42. Distance (abbr.)
44. Waveguide (abbr.)
45. Full Break-In (signal)
47. Unwanted oscillation
48. Adjust to the same impedance
51. Inductor
53. Excessive power
54. Cut or trim
55. Radio Frequency (abbr.)
56. Old tubes get like this
61. What always comes first
64. Four element tube
66. Stainless Steel (abbr.)
67. Unit of conductance
68. Boolean complement to AND
69. Magnetically-controlled switch
70. Where the drive goes
71. Trust
72. Aluminum (abbr.)

73. Most positive electrode

## Down

1. Replicates accurately
2. Electrical jolt
3. Engineer (abbr.)
4. Antenna Tuner (abbr.)
5. Stores electric energy
6. Old Timer (abbr.)
7. Not high
8. Smooth surface on ceramic
10. Lights up under power
12. Controls amp gain (abbr.)
13. High Power (signal)
14. Measuring instrument
18. Rarest Tenth District state (abbr.)
19. Adjust frequency
20. High temperature
24. Shows plate current resonance
25. Voice level units (abbr.)
26. Watt-hours (abbr.)
28. Changes AC voltages
29. Use your voice
30. Frequency range
33. Prefix for two
34. Touch the HV and you'll be one of these (abbr.)
37. Normally Open (abbr.)
38. Prefix for a billion-billion
39. Dummy
40. Glass air guide
41. Controls gain (abbr.)
43. Variable transmit tuning
44. First bit of smoke
46. Mode with a steady carrier
49. At a previous time
50. Stop the action!
52. Intermediate frequency (abbr.)
53. Contaminated vacuum
57. The best price
58. From (abbr.)
59. Keeps RF current out
60. Natural antenna support
62. To stop working
63. Switch between talk and listen (abbr.)
64. Not the bottom
65. Remove water
66. Hang down in the middle
67. One thousand kVA (abbr.)



Copyright © 2003, American Radio Relay League, Inc. All Rights Reserved, used with permission.

# Gigantic Pikes Peak Area MEGAFEST

Saturday June 12, 2004

0800 to 1300 (Vendors 0600) Ticket sales 0730

Lewis-Palmer High School 1300 Higby Rd. Monument, CO

Just East of I-25, between Exits 158 & 161

Pikes Peak Radio Amateur Association, Inc.

A 501(c)(3) Non-profit Organization



## TABLE PURCHASE:

(Does NOT include admission)

One chair per table included with table rental

IN ADVANCE.....\$10.00

AT THE DOOR.....\$15.00

ADMISSION: \$5.00

Additional Info: Kate Muniz WB9BAH

719-683-7702; [wb9bah@aol.com](mailto:wb9bah@aol.com)



Special thanks to the  
Cheyenne Mountain  
Repeater Group, Inc.

for their donation of the  
Icom 2720 H.

## Drawing !!! Prizes !!!

**Fox Hunt at 1300, weather permitting!**

## ICOM 706 MKIIG

HF/VHF/UHF All Mode Transceiver

## ICOM 2720 H

Dual Band Mobile FM Transceiver  
Donated by CMRG

## ICOM Q7-A

Ultra Compact Dual Band Handheld

Raffle Tickets: \$1.00 each, 6 for \$5.00,

15 for \$10.00 or 40 for \$20.00

Raffle License 2004-0627

Pikes Peak Amateur Association, Inc.

PO Box 16521, Colorado Springs, CO 80935

Drawing at 1200 June 12, 2004

Winners Need **NOT** Be Present To Win

ALSO: Hourly Door Prize Drawings

Winners **MUST** Be Present To Win Door Prizes

## Forums !!! Sessions !!!

VE Testing at 1000

ARES Forum

QRP Forum

YL Forum

Satellite Forum

ARRL Forum

For updated info, go to: [www.qsl.net/ppraa](http://www.qsl.net/ppraa)

Talk In 146.970 (100Hz CTCSS), or 146.520 simplex

## ADVANCE TABLE PURCHASE FORM

NAME \_\_\_\_\_ CALL \_\_\_\_\_ PHONE \_\_\_\_\_

ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ ST \_\_\_\_\_ ZIP \_\_\_\_\_

EMAIL: \_\_\_\_\_ # TABLES \_\_\_\_\_ @ \$10.00= \_\_\_\_\_

# ADMISSIONS \_\_\_\_\_ @ \$5.00= \_\_\_\_\_

TOTAL ENCLOSED = \_\_\_\_\_

[ ] Please mark this box if you would like confirmation – via email is preferred! Packets will be ready at the door at 0600 for advance registrations; there is NO Friday night set-up available. Advance registrations must be received by June 8, 2004.

Please mail all registrations to: Kate Muniz, WB9BAH, 13360 Cottontail Dr., Peyton, CO 80831

Checks payable to PPRAA.

([wb9bah@aol.com](mailto:wb9bah@aol.com))





## Satellite Operations

AO-27 is available as a FM voice repeater for most of its passes. You can work it using a dual band HT and a small hand held beam such as the Arrow Dual Band antenna or see <http://clarc.org/articles/uhf.htm> to build one. Two separate radios can also be used.

436.795 MHz (+/- Doppler) FM Downlink

145.850 MHz FM Uplink

These are some of the April weekend passes available: (Always make sure you hear the sat before transmitting.)

Time (Z) Azimuth Elevation Rx Doppler  
AO-27 position on Saturday, April 03, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
14:21:00	355.3°	+12.5°	+5 KHz
14:24:00	324.6°	+33.5°	0
14:27:00	250.0°	+31.5°	0
14:30:00	222.5°	+11.0°	-5 KHz
23:57:00	135.6°	+2.6°	+5 KHz

AO-27 position on Sunday, April 04, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
00:00:00	119.3°	+15.9°	+5 KHz
00:03:00	74.6°	+29.9°	0
00:06:00	22.8°	+19.3°	-5 KHz
00:09:00	3.2°	+5.1°	-5 KHz

Time (Z)	Azimuth	Elevation	Rx Doppler
01:36:00	192.5°	+1.2°	+5 KHz
01:39:00	206.9°	+13.8°	+5 KHz
01:42:00	246.2°	+29.7°	0
01:45:00	304.4°	+23.0°	-5 KHz
01:48:00	328.8°	+7.7°	-5 KHz

Time (Z)	Azimuth	Elevation	Rx Doppler
13:51:00	9.6°	+4.7°	+10 KHz
13:54:00	6.1°	+22.7°	+5 KHz
13:57:00	319.8°	+70.6°	0
14:00:00	206.2°	+29.6°	-5 KHz
14:03:00	200.8°	+7.6°	-10 KHz

AO-27 position on Monday, April 05, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
01:09:00	179.3°	+7.9°	+10 KHz
01:12:00	191.8°	+29.0°	+5 KHz
01:15:00	281.8°	+56.2°	0
01:18:00	332.9°	+21.1°	-5 KHz
01:21:00	341.6°	+4.3°	-10 KHz

AO-27 position on Saturday, April 10, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
14:21:00	2.0°	+2.4°	+10 KHz
14:24:00	349.3°	+16.5°	+5 KHz
14:27:00	305.4°	+36.2°	0
14:30:00	241.5°	+24.1°	-5 KHz

Time (Z)	Azimuth	Elevation	Rx Doppler
14:33:00	221.4°	+6.9°	-10 KHz

AO-27 position on Sunday, April 11, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
00:00:00	134.5°	+5.9°	+5 KHz
00:03:00	113.8°	+21.3°	+5 KHz
00:06:00	57.5°	+31.6°	0
00:09:00	14.3°	+15.7°	-5 KHz
00:12:00	359.8°	+2.3°	-5 KHz

Time (Z)	Azimuth	Elevation	Rx Doppler
01:39:00	197.0°	+3.6°	+5 KHz
01:42:00	215.6°	+16.9°	+5 KHz
01:45:00	262.9°	+29.0°	0
01:48:00	311.7°	+17.8°	-5 KHz
01:51:00	331.2°	+4.3°	-5 KHz

AO-27 position on Sunday, April 11, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
13:54:00	8.0°	+8.2°	+10 KHz
13:57:00	0.5°	+30.3°	+5 KHz
14:00:00	253.2°	+65.2°	0
14:03:00	207.1°	+21.6°	-5 KHz
14:06:00	202.2°	+4.1°	-10 KHz

AO-27 position on Monday, April 12, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
01:12:00	183.6°	+11.6°	+10 KHz
01:15:00	204.6°	+36.6°	+5 KHz
01:18:00	304.1°	+44.1°	0
01:21:00	334.4°	+15.3°	-5 KHz
01:24:00	342.1°	+1.2°	-10 KHz

AO-27 position on Saturday, April 17, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
14:24:00	358.8°	+5.4°	+10 KHz
14:27:00	340.9°	+20.9°	+5 KHz
14:30:00	284.9°	+34.8°	0
14:33:00	236.0°	+17.9°	-5 KHz
14:36:00	220.6°	+3.4°	-10 KHz

AO-27 position on Sunday, April 18, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
00:03:00	132.9°	+9.9°	+5 KHz
00:06:00	105.1°	+27.6°	0
00:09:00	39.9°	+30.0°	0
00:12:00	7.7°	+11.9°	-5 KHz

AO-27 position on Sunday, April 18, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
01:42:00	202.3°	+6.2°	+5 KHz
01:45:00	226.4°	+19.8°	+5 KHz
01:48:00	278.4°	+26.2°	0
01:51:00	317.3°	+13.2°	-5 KHz
01:54:00	333.4°	+1.3°	-5 KHz

Time (Z)	Azimuth	Elevation	Rx Doppler
13:57:00	5.5°	+12.4°	+10 KHz
14:00:00	350.2°	+40.2°	+5 KHz
14:03:00	230.8°	+48.5°	0
14:06:00	207.8°	+15.4°	-5 KHz
14:09:00	203.3°	+0.9°	-10 KHz

Time (Z)	Azimuth	Elevation	Rx Doppler
14:33:00	221.4°	+6.9°	-10 KHz

AO-27 position on Monday, April 19, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
01:12:00	180.4°	+1.5°	+10 KHz
01:15:00	189.2°	+15.9°	+5 KHz
01:18:00	225.2°	+43.8°	0
01:21:00	315.3°	+33.0°	-5 KHz
01:24:00	335.8°	+10.5°	-10 KHz

AO-27 position on Saturday, April 24, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
14:27:00	354.6°	+8.7°	+5 KHz
14:30:00	329.3°	+25.2°	+5 KHz
14:33:00	267.7°	+30.0°	0
14:36:00	232.2°	+12.7°	-5 KHz
14:39:00	220.0°	+0.2°	-5 KHz

AO-27 position on Sunday, April 25, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
00:03:00	142.4°	+1.2°	+10 KHz
00:06:00	130.4°	+14.6°	+5 KHz
00:09:00	91.0°	+34.4°	0
00:12:00	25.0°	+25.8°	-5 KHz
00:15:00	2.7°	+8.2°	-10 KHz

Time (Z)	Azimuth	Elevation	Rx Doppler
01:45:00	208.7°	+8.9°	+5 KHz
01:48:00	239.4°	+22.0°	0
01:51:00	291.2°	+22.1°	0
01:54:00	321.9°	+9.1°	-5 KHz

Time (Z)	Azimuth	Elevation	Rx Doppler
13:57:00	7.5°	+2.2°	+10 KHz
14:00:00	1.7°	+17.4°	+5 KHz
14:03:00	329.1°	+51.1°	0
14:06:00	223.1°	+34.9°	-5 KHz
14:09:00	208.4°	+10.3°	-10 KHz

Time (Z)	Azimuth	Elevation	Rx Doppler
23:36:00	124.8°	+2.2°	+5 KHz
23:39:00	104.8°	+13.3°	+5 KHz
23:42:00	64.2°	+20.9°	0
23:45:00	24.4°	+13.0°	-5 KHz
23:48:00	5.2°	+2.0°	-5 KHz

AO-27 position on Monday, April 26, 2004 (UTC)

Time (Z)	Azimuth	Elevation	Rx Doppler
01:15:00	184.0°	+4.5°	+10 KHz
01:18:00	196.9°	+21.0°	+5 KHz
01:21:00	254.1°	+46.2°	0
01:24:00	321.9°	+24.3°	-5 KHz
01:27:00	337.2°	+6.5°	-10 KHz

For other passes see: <http://www.heavens-above.com/> and select AO-27 from the Radio Amateur Satellite data list. Please contact me if you have any questions.

73 Tom n0ntx, 570-1465 or  
n0ntx@amsat.org

Last Name	First Name	Call Letters	Email Address
A			
AGUN	SHARON	KC0PBR	
ALLISON	TED	N0NKG	n0nkg@arri.net
AMBURN	JIM	N0TUJ	james.amburn@prodigy.net
ANDERSON	MIKE	WV7T	WV7T@aol.com
ANDERSON	RHODA	KB2BZY	wv7t@aol.com
ANTION	ROBERT	WL7RV	wl7rv@arri.net
AUER	JOHN	KB0UMU	j-auer@msn.com
B			
BATES	STEVE	N0MHQ	cbates1122@aol.com
BELLAMY	WILLIAM	WB2EVR	
BERGESON	HAL	W0MXY	hbw0mxy@aol.com
BORST	JODY	KA0ROZ	kc0nc@qsl.net
BORST	LES	KC0NC	kc0nc@falcombroadcast.net
BRAMLEY	BILL	N0TUL	w.bramley@att.net
BRETT	CHARLES	KC0APU	brett3729@aol.com
BROWN	RICK	K0SU	k0su@adelphia.net
BURRELL	JENNIFER	KC0RQM	Cimom419@msn.com
BURRELL	RICHARD	KC0RJA	Richard-burrell@msn.com
BURRELL	TROY	W0TLB	dio@adelphia.net
C			
CHICKAUL	JOHN	KG0MC	john.au@pcisys.net
COLEMAN	THOMAS	W2ZFB	tcoleman@mstar2.net
COOK	BARRY	W0MOG	w0mog@juno.com
CORNELL	DOC	W0MCT	w0mct@aol.com
COX	THOMAS	WD0GVH	tcox5@earthlink.net
CRUISE	BEN	N0LNW	n0lnw@arri.net
CULLEN	RICHARD	W0MNX	w0mnx@w0mnx.com
D			
DASSERO	MIKE	N0MUD	N0MUD@aol.com
DEUTSCH	RONALD	NK0P	deutschrd@earthlink.net
DeVEGA	ROBERT	N4RPD	N4RPD@arri.net
DUFFY	RON	AB0WO	ron_duffy@juno.com
DURBIN	RONALD	KC0GLP	durbin_ron@emc.com

Last Name	First Name	Call Letters	Email Address
DURBIN	RYAN	KC0GLQ	ron.durbin@crosstor.com
E			
ELLIS	DAVID	KC0JZU	
ELLIS	JONATHAN	KC0EGK	
ESLICK	ROGER	N0VR	raeslick@adelphia.net
F			
FERRARA	ANDREW	WA0IBS	anferrara@yahoo.com
FERRARA	CAROL	KC0CYU	anferrara@yahoo.com
FORST	RAYMOND	KC0ETZ	
FOUST	JACLYN	KC0JTP	happyhawk@adelphia.net
FOUST	ROGER	KE6ZOT	HappyHawk@adelphia.net
G			
GAGE	PHILIP	K10NY	pgage@attglobal.net
GALBRAITH	COLLEEN	N0QWO	johngalco@aol.com
GALBRAITH	JOHN	N0QYW	
GAUCK	BRIAN	KC9EMW	driftwood_62@yahoo.com
GORUEN	SUISEI	KC0PRN	cobwebdivide.net
H			
HANSON	TROY L.	WB0LMH	tha3336678@aol.com
HANSZ	JERALD	K0CST	jhansz@adelphia.net
HARRIS	JIM D.	AB0UK	AB0UK@yahoo.com
HARRIS	L.D.	KC0MIP	
HASLING	JOHN	K0AAI	k0aai@arri.net
HIPSZKY	GINGER	N0UOD	ghipszky@netscape.net
HIPSZKY	SKEE	N0PRY	istvan.hipszky@wcom.com
HOSEA	MEL	W3TMR	mehosea@kktv.com
HOSEA	SARALEE	N0IZQ	shosea@kktv.com
HULL	RANDY	KC0RQS	hullrp@adelphia.net
HULSEY	JERRY	K0JEH	jhulsey@interest.net
J			
JACOBS	JAKE	N0CYR	
JANES	LONNY	W0JWS	ljanes@gbronline.com
K			
KELLY	PATRICK	KC0MIR	pwkellysr@juno.com



Last Name	First Name	Call Letters	Email Address
P			
PELOUZE	AARON	KD6FLM	kd6fm@arrl.net
PENNEY	AL	VO1NO	vo1no@arrl.net
PENNEY	SHELLEY	VE1NDS	vo1no@rac.ca
PETTY	WILLIAM	N0NJX	william.petty@isil.com
PFANNENSCHMID	HAROLD	W0ZZS	w0zzs@juno.com
PHILLIPS	KENNETH	N0NKP	klphillips@juno.com
PROCTOR	MICHAEL	KB0IAP	KB0IAP@ARRL.NET
R			
RAGAN	DAVID	W0MEY	w0mey@arrl.net
RIESE	DAVID	WB0SDW	dwr@pcisys.net
ROHRIG	RALPH	K1ONK	erohrigr@netscape.net
ROLLER	DOROTHY	KC0BSY	kc0bsy@amsat.org
ROLLER	ROBERT	N7LV	N7LV@amsat.org
RYAN	JEFF	K0RM	k0rm@arrl.net
S			
SAVERS	ROBERT	W00FA	bsavers@csu.org
SCHAARSCHMIDT	STEVE	K0CI	k0ci@arrl.net
SCHARER	CHARLOTTE	N0VAN	n0uvr@arrl.net
SCHARER	RICHARD	N0UVT	n0uvr@arrl.net
SCHLADWEILER	ELMER	WA0WJY	
SCHUSTER	RALPH	KA0RER	ka0rer@msn.com
SCOTT	DAN	KB0PPM	kb0ppm@arrl.net
SKINNER	FRANKLIN	KA4JQZ	f_skinner@yahoo.com
STAFFORD	KIRBY	WA0TBJ	kstaff2716@aol.com
STANSBERRY	LUCI	N0OUD	k0ter@arrl.net
STANSBERRY	MIKE	K0TER	k0ter@arrl.net
STEEVES	NORMAN	AB0QJ	
STIENMIER	RICHARD	KB0WX	rstienmier@viawest.net
STILL	MARTY	KC0JTU	mmstill@peoplepc.com
STUART	RICHARD S.	KB8EQ	dick.stuart@hp.com
SWEAT	RICHARD	N0IKE	n0ike@juno.com
T			
TARCZA	GREGORY A.	WA2OOD	gtarcza@adelphia.net

Last Name	First Name	Call Letters	Email Address
KNIGHT	KEN	N0YGM	n0ygm@qsl.net
KURTH	DAVE	N0UVR	n0uvr@juno.com
L			
LaFOSSE	PETER	N0LA	n0la@juno.com
LEACH	DEBORAH	KK0DEB	pleach@hcb.org
LEACH	NATE	KC0HPW	pleach@hcb.org
LEACH	PHILLIP	KK0PL	kk0pl@arrl.net
LIBENGOOD	BUD	N0DDF	n0ddf@earthlink.net
LOCKHART	GEORGE	W0GHL	ghlock@pcisys.net
M			
MAJOR	DENNIS	N0ABC	n0abc@arrl.net
MARCIANO	JOSEPH	KQ0S	joemarciano@aol.com
MAXWELL II	FREDERICK	KC0FRM	madmax_1955@yahoo.com
MAYO	FRANCIS CLARK	KC0LNM	cmayo@adelphia.net
MAYO	RUTH	KC0RAW	
McCLURE	DONALD	W0ZN	dmc2345@adelphia.net
McCOLLUM	PETE	N0TDM	seipan59@att.net
McDANIEL	THOMAS	N0NTX	n0ntx@amsat.org
McNALLY	FRANK	KF0WF	warm.fuzzy@bigfoot.com
MERRILL	JIM	W0ANX	
MILLER	NORMAN	N0ENN	normcos@adelphia.net
MOGEL	JACOB	KC0LZY	jakemogel@aol.com
MOLONEY	DOUG	W0MHP	cnd.moloney@att.net
MORAIN	PAUL	N0PWM	pmorain@adelphia.net
MUNIZ	KATE	WB9BAH	kc0egj@aol.com
MURPHY	GEORGE	KE6YAG	
MURPHY	NANCY	KE6WUW	ke6yag@arrl.net
MYERS	JAMES	KC0PAZ	kc0paz@arrl.net
N			
NILES	KEN	KC0PBQ	kc0pbq@arrl.net
NOFFSINGER	DON	K7CIF	k7cif@juno.com
NOLAN JR	CHARLES	KB0NXT	cmolanjr@adelphia.net
O			
OCHS	LARRY	KA0TAO	ochs@pld.com

## Public Service Communications



### ARES

<http://www.qsl.net/ppares/>

VHF Net Tuesdays at 1900 on the 146.97 MHz  
PPFMA repeater

Sid White K4ARM, PPARES EC

No updates this month



### RACES

<http://www.qsl.net/epcraces/>

VHF Net Tuesdays at 1930 on the 146.76 MHz  
CMRG repeater

Les Borst KCØNC, RACES Officer

Spring is here (According to the calendar) and it's time we should start thinking about outside work. Sorry XYLs I'm not talking about flower gardens, lawns, or house painting. What I am referring to is radio antennas. Check current installations or install new ones. Remember we get a lot of lightning around here, so pay particular attention to protection for equipment, your house and of course you.

By the time you read this we should have completed First Aid training for our members.

Next month we will be having training by the National Weather Service on severe weather.

Our next meeting will be April 21, 2004 at the County OEM at 7:00 PM.

Last Name	First Name	Call Letters	Email Address
TAYLOR	CHRISTOPHER	NC6T	cstaylor@alum.wri.edu
V			
VERDUFT	JERRY	AD0A	ad0a@arrl.net
VERDUFT	JOANIE	KC0GMI	ad0a@arrl.net
VROOMAN	ALLEN	N0CMW	n0cmw@pcisys.net
W			
WILLIAMS	STEVE	K0SRW	k0srw@arrl.net
WILSON	DAVID	W0ZHZ	DHW7676@AOL.COM
WISHART	JOHN	KC0JFH	john.wishart@hp.com
WOGAMAN	ROBERT	KB0B	kb0b@att.net
WOODRUFF	CARL	K0WVB	cwdrff@aol.com
WRIGHT	CLIFF	W0JCW	w0jcw@arrl.net
Z			
ZIMMERMAN	WILL	NOHRD	willzim1@aol.com

(Continued from page 1)

44. Digging through my box of QSL cards from my days as a NC ham I found his QSL card and scanned it in the computer and sent it to Adam via e-mail thanking him for the contact we just had, and the one 24 years earlier. Soon after that Adam sent me a scanned picture of my old QSL card. Now I have sent out thousands of cards but really never saw one that had been delivered and there it was. Someone actually held on to my card all these years.

Well, I still log every contact and since this QSO I decided to put all my log books on the computer so I can easily search contacts from the past. Adam did not have any contacts from when he operated under his old call sign in his computer log but has decided it was time to do so. If it had not been for the Internet, my old log books and Adam's web page this would have been just another QSO. Thanks Adam and 73.

## Zero-Beat Articles Needed

Please email to  
**KC0NRZ@ARRL.NET**

### Jess Miley KØTAA

719 W 7th, Florence, CO, 81226

719-784-3040

Amateur &amp; Hobby Radio Products. We Trade

30 day money back guarantee on used equipment.  
Excellent Tech @35 per hour, Commercial rates higher

Please call before you drive

### Membership Application for the Pikes Peak Radio Amateur Association, Inc.

P.O. Box 16521, Colorado Springs, CO 80935-6521

Date: \_\_\_\_\_ ☐ New Member ☐ Renewal

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Call: \_\_\_\_\_ Class: N T + G A E Phone: \_\_\_\_\_

Mbr of ARRL? ☐ Yes ☐ No E-mail: \_\_\_\_\_

Additional Family Members to Join/Renew:

Name: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_ ARRL? \_\_\_\_\_

Name: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_ ARRL? \_\_\_\_\_

Name: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_ ARRL? \_\_\_\_\_

In which activities would you like to participate?

Field Day ☐Demonstrations ☐Nets or round tables ☐Organize activities ☐Teach ham classes ☐Full Member \$15: ☐Family Membership \$18: ☐Over 65 \$10: ☐Over 65 Family \$12: ☐Associate \$12: ☐Ø-Beat Only \$12: ☐

Donation to Club: \$ \_\_\_\_\_

Total Enclosed: \_\_\_\_\_

**MAKE ALL CHECKS PAYABLE  
TO "PPRAA"**

**Please indicate how you'd like your Ø-Beat delivered:**

(Defaults to standard hard copy in the  
event that NO check boxes are checked)

.. Standard hardcopy via U.S. Mail

.. As a PDF file attachment via e-mail, to help save a few bucks

.. I'll save the club a few bucks and download it from the Web!

Circle your interests Ø HF / V/UHF / FM / SSB / Digital / DX / Contests / Technical / Hardware / Other \_\_\_\_\_

New and renewing members must submit a completed application form along with your check to the Treasurer.

**Please Type or Print Clearly!**

**ALL NEW MEMBERSHIPS AND RENEWALS WILL BE PRORATED TO EXPIRE IN DECEMBER!!**

## Membership Committee Report

Les, KCØNC

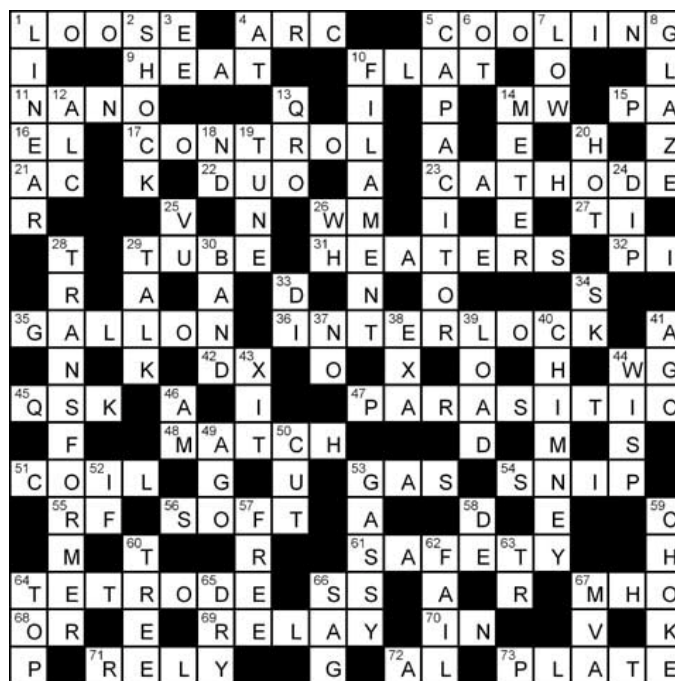
Please welcome these New Members

JENNIFER BURRELL	KC0RQM
RICHARD BURRELL	KC0RJA
ROBERT DeVEGA	N4RPD
RANDY HULL	KC0RQS
JERRY HULSEY	K0JEH
RUTH MAYO	KC0RAW
PETE McCOLLUM	N0TDM
PAUL MORAINÉ	N0PVM
JAMES MYERS	KC0PAZ
FRANKLIN SKINNER	KA4JQZ
RICHARD S STUART	KD8EQ
CLIFF WRIGHT	W0JCW

Total Number of Members 129

## Pikes Peak Region Ham Radio Events

Date	Event
4/14/2004	PPRAA Club meeting
4/19/2004	PPRAA Board meeting
6/12/2004	PPRAA VE Testing



**Pikes Peak Radio Amateur Association, Inc.**  
**P.O. Box 16521**  
**Colorado Springs, CO 80935-6521 USA**

**First Class Mail**

**To:**